#### COMMONWEALTH OF VIRGINIA **DEPARTMENT OF EDUCATION** P.O. BOX 2120 RICHMOND, VIRGINIA 23218-2120

#### SPECIFICATION NOTICE 01-1 SEPTEMBER 1, 2000

TO: MICHAEL A. SYKES, BUSINESS DEVELOPMENT MANAGER, CARPENTER INDUSTRIES, INC.

FROM: VINCE NEVIUS, ASSOCIATE SPECIALIST, VIRGINIA DEPARTMENT OF EDUCATION

SUBJECT: APPROVED BUS BODIES AND SPECIFICATIONS FOR USE IN VIRGINIA.

BASED ON VIRGINIA'S 2001 SPECIFICATIONS AND FLOOR PLAN DRAWINGS SUPPLIED TO THIS OFFICE BY CARPENTER INDUSTRIES, INC. THE FOLLOWING BODIES AND SPECIFICATIONS ARE APPROVED SUBJECT TO ACTUAL MEASUREMENTS OF COMPLETED UNITS.

NO. PASS.	<u>WB</u>	ROWS	<u>OAL</u>	KNEE ROOM	PLAN NO.
34-CONV.	152	6	18'07"	25.00R/25.00L	01-1807-2000
52-CONV.	218	9	25'07"	25.00R/25.00L	01-2507-2000
64-CONV.	254	11	30'03"	25.00R/25.00L	01-3003-2001
52-COUNSELOR	143	9	26'10"	25.00R/25.00L	27-2610-2000
58-COUNSELOR	143	10	29'02"	25.00R/25.00L	27-2902-2000
64-COUNSELOR	171	11	31'07"	25.00R/25.00L	27-3107-2000
70-COUNSELOR	199	12	33'11"	25.00R/25.00L	27-3311-2000
77-COUNSELOR	199	13	36'10"	25.00R/25.00L	27-3610-2000
83-COUNSELOR	227	14	39'02"	25.00R/25.00L	27-3902-2000

TYPE "A" UNITS WILL BE APPROVED ON AN INDIVIDUAL BASIS.

A MAXIMUM OF TWO ELONGATED SECTIONS WILL BE PERMITTED WHERE NEEDED.

A BACK-UP ALARM OF APPROX, 97 DBA SHALL BE INSTALLED ON EACH BUS.

AN APPROVED STROBE LIGHT SHALL BE INSTALLED ON EACH BUS.

PLASTIC BODY AUX. HEATER PUMPS WILL NOT BE APPROVED

ALL CROSSING GATES SHALL HAVE A LATCH.

"SPECIAL NEEDS" BUSES AND ALL GAS POWERED BUSES SHALL BE SUPPLIED WITH A JOMARR THERMATIC FIRE EXTINGUISHER SYSTEM WITH NAF-111 LIQUID CLEAN AGENT.

ALL CONSTRUCTION, MATERIAL, AND EQUIPMENT MUST COMPLY WITH "REGULATIONS GOVERNING PUPIL TRANSPORTATION INCLUDING MINIMUM STANDARDS FOR SCHOOL BUSES IN VIRGINIA" - JULY 1994.

CC: CHESAPEAKE BUS AND EQUIPMENT CO.

CARPENTER—COUNSELOR—52-PASSENGER—DIESEL—AIR BRAKE

GVWR 30,000LBS. WHEELBASE 143"

WHEELS DISC—10 STUD HUDD TYPE—22.5 X 8.25 HUB PILOTED

TIRES 11R22.5 --14 -PLY TUBELESS

FRAME ONE PIECE SIDE MEMBER

STEERING ROSS TAS65107 TURNING RADIUS 41.5 FEET

FRONT BUMPER 1/2" CHANNEL STEEL

FRONT AXLE MERITOR 13,200 LB.

REAR AXLE MERITOR 21,000LB RATIO 4.88

BRAKES FULL AIR—15.2 CFM COMPRESSOR – 16 ½" X 6" FRT. – 16 ½" X 8 5/8" REAR –BW DRYER

PARKING BRAKE SPRING LOADED REAR CHAMBERS

SUSPENSION FRT. -13,200LB AIR BAG

REAR—23,000LB. AIR BAG FRT. AND REAR SHOCKS

ENGINE CUMMINS 6BT5.9 –190 HP – 520 FT. LBS. TORQUE @1400

ELECTRONIC HAND THROTTLER

SET ECM TO MAXIMUM ROAD SPEED OF 55MPH

RADIATOR WITH INTEGRAL TRANSMISSION COOLER AND CHARGE AIR COOLER

TRANSMISSION ALLISON T-2000 WITH FELSTED CONTROL

<u>DRIVE SHAFT</u> GREASE FITTINGS ON ALL JOINTS – GUARDS ON ALL SHAFGTS

FUEL TANK 70 GALLON BETWEEN RAILS REAR

AIR CLEANER FARR DRY ELEMENT TYPE WITH RESTRICTION INDICATOR

OIL FILTER 1-QUART SPIN ON

**BATTERY** 2-GR31 -- 12 VOLT---2000CCA ---POSITIVE CABLE ---RED NEGATIVE CABLE ---BLACK

<u>ALTERNATOR</u> 160 AMP LEECE-NEVILLE --MIN. 4-GAUGE CHARGING AND GROUND CIRCUIT

HORN DUAL ELECTRIC

<u>LIGHTS</u> PER FMVSS 108

EXHAUST 16 GAUGE 4" DIAMETER ALUMINIZED STEEL

GAUGES SPEEDOMETER TO SHOW TENTHS OF A MILE

TACHOMETER FUEL GAUGE VOLTMETER

WATER TEMPERATURE

OIL PRTESSURE

COLOR FRAME, WHEELS, RUB RAILS AND BUMPER SHALL BE BLACK----BALANCE TO BE NATIONAL

SCHOOL, BUS YELLOW

CARP1 (OVER)

CARPENTER—COUNSELOR—58-PASSENGER—DIESEL—AIR BRAKE

GVWR 30,000LBS. WHEELBASE 143"

WHEELS DISC—10 STUD HUDD TYPE—22.5 X 8.25 HUB-PILOTED

TIRES 11R22.5 --14 -PLY TUBELESS

FRAME ONE PIECE SIDE MEMBER

STEERING ROSS TAS65107 TURNING RADIUS 47.5 FEET

FRONT BUMPER 1/2" CHANNEL STEEL

FRONT AXLE MERITOR 13,200 LB.

REAR AXLE MERITOR 21,000LB RATIO 4.88

BRAKES FULL AIR—15.2 CFM COMPRESSOR - 16 1/2" X 6" FRT. - 16 1/2" X 8 5/8" REAR -BW DRYER

PARKING BRAKE SPRING LOADED REAR CHAMBERS

SUSPENSION FRT. -13,200LB AIR BAG

REAR—23,000LB. AIR BAG FRT. AND REAR SHOCKS

ENGINE CUMMINS 6BT5.9 –190 HP – 520 FT. LBS. TORQUE @1400

ELECTRONIC HAND THROTTLER

SET ECM TO MAXIMUM ROAD SPEED OF 55MPH

RADIATOR WITH INTEGRAL TRANSMISSION COOLER AND CHARGE AIR COOLER

TRANSMISSION ALLISON T-2000 WITH FELSTED CONTROL

<u>DRIVE SHAFT</u> GREASE FITTINGS ON ALL JOINTS – GUARDS ON ALL SHAFGTS

**FUEL TANK** 70 GALLON BETWEEN FRAME RAILS - REAR

AIR CLEANER FARR DRY ELEMENT TYPE WITH RESTRICTION INDICATOR

OIL FILTER 1-QUART SPIN ON

BATTERY 2 -- 12 VOLT---2000CCA ---POSITIVE CABLE ---RED NEGATIVE CABLE ---BLACK

<u>ALTERNATOR</u> 160 AMP LEECE-NEVILLE --MIN. 4-GAUGE CHARGING AND GROUND CIRCUIT

HORN DUAL ELECTRIC

<u>LIGHTS</u> PER FMVSS 108

EXHAUST 16 GAUGE 4" DIAMETER ALUMINIZED STEEL

GAUGES SPEEDOMETER TO SHOW TENTHS OF A MILE

TACHOMETER FUEL GAUGE VOLTMETER

WATER TEMPERATURE

OIL PRTESSURE

COLOR FRAME, WHEELS, RUB RAILS AND BUMPER SHALL BE BLACK----BALANCE TO BE NATIONAL

SCHOOL, BUS YELLOW

CARP2 (OVER)

CARPENTER—COUNSELOR—64-PASSENGER—DIESEL—AIR BRAKE

GVWR 30,000LBS. WHEELBASE 171"

WHEELS DISC—10 STUD HUDD TYPE—22.5 X 8.25 – HUB PILOTED

TIRES 11R22.5 --14 -PLY TUBELESS

FRAME ONE PIECE SIDE MEMBER

STEERING ROSS TAS65107 TURNING RADIUS 57.6 FEET

FRONT BUMPER 1/4" CHANNEL STEEL

FRONT AXLE MERITOR 13,200 LB.

REAR AXLE MERITOR 21,000LB RATIO 4.88

BRAKES FULL AIR—15.2 CFM COMPRESSOR – 16 ½" X 6" FRT. – 16 ½" X 8 5/8" REAR –BW DRYER

PARKING BRAKE SPRING LOADED REAR CHAMBERS

**SUSPENSION** FRT. -13,200LB AIR BAG

REAR—23,000LB. AIR BAG FRT. AND REAR SHOCKS

ENGINE CUMMINS 6BT5.9 –190 HP – 520 FT. LBS. TORQUE @1400

ELECTRONIC HAND THROTTLER

SET ECM TO MAXIMUM ROAD SPEED OF 55MPH

RADIATOR WITH INTEGRAL TRANSMISSION COOLER AND CHARGE AIR COOLER

TRANSMISSION ALLISON T-2000 WITH FELSTED CONTROL

<u>DRIVE SHAFT</u> GREASE FITTINGS ON ALL JOINTS – GUARDS ON ALL SHAFGTS

FUEL TANK 70 GALLON REAR-BETWEEN FRAME RAILS

AIR CLEANER FARR DRY ELEMENT TYPE WITH RESTRICTION INDICATOR

OIL FILTER 1-QUART SPIN ON

BATTERY 2 -- 12 VOLT---2000CCA ---POSITIVE CABLE ---RED NEGATIVE CABLE ---BLACK

<u>ALTERNATOR</u> 160 AMP LEECE-NEVILLE --MIN. 4-GAUGE CHARGING AND GROUND CIRCUIT

HORN DUAL ELECTRIC

<u>LIGHTS</u> PER FMVSS 108

EXHAUST 16 GAUGE 4" DIAMETER ALUMINIZED STEEL

GAUGES SPEEDOMETER TO SHOW TENTHS OF A MILE

TACHOMETER FUEL GAUGE VOLTMETER

WATER TEMPERATURE

OIL PRTESSURE

COLOR FRAME, WHEELS, RUB RAILS AND BUMPER SHALL BE BLACK---BALANCE TO BE NATIONAL

SCHOOL, BUS YELLOW

CARP3 (OVER)

CARPENTER—COUNSELOR—70-PASSENGER—DIESEL—AIR BRAKE

GVWR 30,000LBS. WHEELBASE 199"

WHEELS DISC—10 STUD HUDD TYPE—22.5 X 8.25 HUB-PILOTED

TIRES 11R22.5 --14 -PLY TUBELESS

FRAME ONE PIECE SIDE MEMBER

STEERING ROSS TAS65107 TURNING RADIUS 62.0 FEET

FRONT BUMPER 1/4" CHANNEL STEEL

FRONT AXLE MERITOR 13,200 LB.

REAR AXLE MERITOR 21,000LB RATIO 4.88

BRAKES FULL AIR—15.2 CFM COMPRESSOR - 16 1/2" X 6" FRT. - 16 1/2" X 8 5/8" REAR -BW DRYER

PARKING BRAKE SPRING LOADED REAR CHAMBERS

**SUSPENSION** FRT. -13,200LB AIR BAG

REAR—23,000LB. AIR BAG FRT. AND REAR SHOCKS

ENGINE CUMMINS 6BT5.9 –190 HP – 520 FT. LBS. TORQUE @1400

ELECTRONIC HAND THROTTLER

SET ECM TO MAXIMUM ROAD SPEED OF 55MPH

RADIATOR WITH INTEGRAL TRANSMISSION COOLER AND CHARGE AIR COOLER

TRANSMISSION ALLISON T-2000 WITH FELSTED CONTROL

<u>DRIVE SHAFT</u> GREASE FITTINGS ON ALL JOINTS – GUARDS ON ALL SHAFGTS

**FUEL TANK** 70 GALLON REAR-BETWEEN FRAME RAILS

AIR CLEANER FARR DRY ELEMENT TYPE WITH RESTRICTION INDICATOR

OIL FILTER 1-QUART SPIN ON

BATTERY 2 -- 12 VOLT---2000CCA ---POSITIVE CABLE ---RED NEGATIVE CABLE ---BLACK

<u>ALTERNATOR</u> 160 AMP LEECE-NEVILLE --MIN. 4-GAUGE CHARGING AND GROUND CIRCUIT

HORN DUAL ELECTRIC

<u>LIGHTS</u> PER FMVSS 108

EXHAUST 16 GAUGE 4" DIAMETER ALUMINIZED STEEL

GAUGES SPEEDOMETER TO SHOW TENTHS OF A MILE

TACHOMETER FUEL GAUGE VOLTMETER

WATER TEMPERATURE

OIL PRTESSURE

COLOR FRAME, WHEELS, RUB RAILS AND BUMPER SHALL BE BLACK---BALANCE TO BE NATIONAL

SCHOOL, BUS YELLOW

CARP4 (OVER)

CARPENTER—COUNSELOR—77-PASSENGER—DIESEL—AIR BRAKE

GVWR 30,000LBS. WHEELBASE 199"

WHEELS DISC—10 STUD HUDD TYPE—22.5 X 8.25 HUB-PILOTED

TIRES 11R22.5 --14 -PLY TUBELESS

FRAME ONE PIECE SIDE MEMBER

STEERING ROSS TAS65107 TURNING RADIUS 66.0 FEET

FRONT BUMPER 1/4" CHANNEL STEEL

FRONT AXLE MERITOR 13,200 LB.

REAR AXLE MERITOR 21,000LB RATIO 4.88

BRAKES FULL AIR—15.2 CFM COMPRESSOR – 16 1/2" X 6" FRT. – 16 1/2" X 8 5/8" REAR –BW DRYER

PARKING BRAKE SPRING LOADED REAR CHAMBERS

SUSPENSION FRT. -13,200LB AIR BAG

REAR—23,000LB. AIR BAG FRT. AND REAR SHOCKS

ENGINE CUMMINS 6BT5.9 –210 HP – 520 FT. LBS. TORQUE @1400

ELECTRONIC HAND THROTTLER

SET ECM TO MAXIMUM ROAD SPEED OF 55MPH

RADIATOR WITH INTEGRAL TRANSMISSION COOLER AND CHARGE AIR COOLER

TRANSMISSION ALLISON T-2000 WITH FELSTED CONTROL

<u>DRIVE SHAFT</u> GREASE FITTINGS ON ALL JOINTS – GUARDS ON ALL SHAFGTS

**FUEL TANK** 70 GALLON REAR- BETWEEN FRAME RAILS

AIR CLEANER FARR DRY ELEMENT TYPE WITH RESTRICTION INDICATOR

OIL FILTER 1-QUART SPIN ON

BATTERY 2 -- 12 VOLT---2000CCA ---POSITIVE CABLE ---RED NEGATIVE CABLE ---BLACK

<u>ALTERNATOR</u> 160 AMP LEECE-NEVILLE --MIN. 4-GAUGE CHARGING AND GROUND CIRCUIT

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SCHOOL, BUS YELLOW

CARP5 (OVER)

CARPENTER—COUNSELOR—83-PASSENGER—DIESEL—AIR BRAKE

GVWR 34,200LBS. WHEELBASE 227"

WHEELS DISC—10 STUD HUDD TYPE—22.5 X 8.25 HUB-PILOTED

TIRES 11R22.5 --14 -PLY TUBELESS

FRAME ONE PIECE SIDE MEMBER

STEERING ROSS TAS65107 TURNING RADIUS 66.0 FEET

FRONT BUMPER 1/4" CHANNEL STEEL

FRONT AXLE MERITOR 13,200 LB.

REAR AXLE MERITOR 21,000LB RATIO 4.88

BRAKES FULL AIR—15.2 CFM COMPRESSOR – 16 ½" X 6" FRT. – 16 ½" X 8 5/8" REAR –BW DRYER

PARKING BRAKE SPRING LOADED REAR CHAMBERS

**SUSPENSION** FRT. -13,200LB AIR BAG

REAR—23,000LB. AIR BAG FRT. AND REAR SHOCKS

ENGINE CUMMINS 6BT5.9 – 210 HP – 520 FT. LBS. TORQUE @1400

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**FUEL TANK** 70 GALLON REAR- BETWEEN FRAME RAILS

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SCHOOL, BUS YELLOW

CARP6 (OVER)